The power supply units 23, 24 include electricity storage devices, such as batteries, and controllers, such as inverters or converters (none is shown). Alternatively, the power supply units 23, 24 may share a single electricity storage device. An electronic control unit (ECU) 25 that controls the driving unit 5 and the steering device 4 through the power supply units 23, 24 is provided.

[0038] The ECU 25 is configured with a microcomputer as a main component, and is configured to perform computations by using data input into the ECU 25 or data stored therein in advance and output the result of computations as a control command signal. For example, the ECU 25 controls driving torque of the motor 7 in the driving unit 5 based on an acceleration request, and controls regenerative torque of the motor 7 or braking force of the braking mechanism 10 in the driving unit 5 based on a braking request. With respect to the steering device 4, the ECU 25 controls steering of the wheels 3 according to a steering angle of a steering wheel 26, controls directional indication based on a signal output as a lever 27 provided on a steering column is manipulated, and controls steering of each wheel 3 to a direction and an angle different from the steering angle during a normal travel based on an output signal of a selection switch 28 intended for special travels.

[0039] The selection switch 28 may be a switch configured such that one of a lateral travel, an oblique travel with the angle thereof, and an on-the-spot rotation is selected by a single knob or lever, or may be switches provided for the respective forms of travel or behavior. In either case, the selection switch 28 is preferably a switch that outputs a signal by being manipulated by a driver. FIG. 1 shows an example of a configuration in which the form of travel or behavior is selected by a rotary selection switch 28. When the selection switch 28 is rotated 90 degrees leftward from a neutral position, a signal for a leftward lateral travel is output, and when the selection switch 28 is rotated 90 degrees rightward, a signal for a rightward lateral travel is output. When the selection switch 28 is rotated within the range of these angles, a signal that causes the vehicle 1 to travel obliquely in the direction of the angle selected by rotating the selection switch 28 is output. The selection switch 28 can also be pushed, and when the selection switch 28 is pushed, a signal for an on-the-spot rotation is output. In the case of a self-driving vehicle, the selection switch 28 may be a switch (a switch in a control program) that outputs a signal based on a result of determination by a self-driving system.

[0040] Here, examples of signals input from sensors (not shown) into the ECU 25 include: a steering angle of the steering wheel 26; a direction indicating signal output as the lever 27 is manipulated; a special steering signal from the selection switch 28; an accelerator operation amount showing a driving request; and a brake signal showing a braking request. Sensors that output these input signals to the ECU 25 can be regarded as the detection unit in the embodiment of the present disclosure.

[0041] In this embodiment of the present disclosure, steering the steering wheel 26 can steer, for example, the front wheels 3 according to the steering angle of the steering wheel 26 and thereby cause the vehicle 1 to turn. Steering of the front wheels 3 is controlled as the ECU 25 controls the steering angles to which the front wheels 3 are steered by the steering devices 4. In addition, steering the wheels 3 individually and to larger steering angles can cause the vehicle

1 to perform a special travel or exhibit a special behavior compared with those of common vehicles. The vehicle 1 includes a direction indication system that indicates toward those around the vehicle 1 (toward the outside of the vehicle body 2) that the vehicle 1 is going to perform such a so-called special travel. The direction indication system in this embodiment of the present disclosure is configured with the above-described detection unit and an indication unit to be described below as main components.

[0042] The indication unit is formed by a functional member that optically or acoustically displays or expresses a special travel of the vehicle 1 toward those around the vehicle 1. Examples of the indication unit include blinkers 29 that flash and brake lights 30 that are provided at a rear part of the vehicle body 2. Backup lights that go on when the vehicle 1 moves backward can also be included in the indication unit.

[0043] The blinker 29 may be a blinker having a configuration in which a single light emitter flashes repeatedly, but is preferably a sequential blinker having a configuration in which a plurality of light emitters (LEDs) that is flashing parts is arranged in a line, such as a straight line or a curved line, and the order of flashing of these LEDs can be appropriately changed. The blinkers 29 are provided on right and left sides of a front surface of the vehicle body 2 and on right and left sides of a rear surface of the vehicle body 2. Flashing of the blinkers 29 is controlled by the ECU 25. FIG. 4 schematically shows an example of a configuration, as seen from the front side of the vehicle 1, in which a right blinker 29R and a left blinker 29L provided on a front surface side of the vehicle body 2 each have four LEDs arranged in a row in the vehicle width direction. The LEDs in the left and right blinkers 29L, 29R are arranged in the order of L1, L2, L3, L4 and R1, R2, R3, R4 from a central side toward an outer side in the vehicle width direction. In the case of a normal travel in which the steering wheel 26 is steered to turn the vehicle 1, when a command for a right turn is given by the lever 27, the LEDs of the right blinker 29R flash repeatedly by going on and off in the order of R1, R2. R3. R4 from the inner side toward the outer side in the vehicle width direction. When a command for a left turn is given by the lever 27, the LEDs of the left blinker 29L flash repeatedly by going on and off in the order of L1, L2, L3, L4 from the inner side toward the outer side in the vehicle width direction. The blinkers 29 provided at the rear part of the vehicle body 2 flash in the same manner. (A first aspect of flashing of the blinkers (29).)

[0044] Described below are examples of special travels, and control of indicating these special travels to those around the vehicle by using the blinkers 29 as the indication unit, in this embodiment of the present disclosure. When a rightward or leftward lateral travel is selected by the selection switch 28 as opposed to a so-called normal travel, a right front wheel 3FR and a left rear wheel 3RL are rotated 90 degrees leftward (in the counterclockwise direction), while a left front wheel 3FL and a right rear wheel 3RR are rotated 90 degrees rightward (in the clockwise direction). Here, the rotation direction is a rotation direction as seen in a top-down view of the vehicle body 2. This state is schematically shown in FIG. 5. When all the wheels 3FL, 3FR, 3RL, 3RR are driven in the same direction in this state, the vehicle 1 travels laterally rightward or leftward. The steering angle in this case can be regarded as the first steering angle in this embodiment of the present disclosure.